

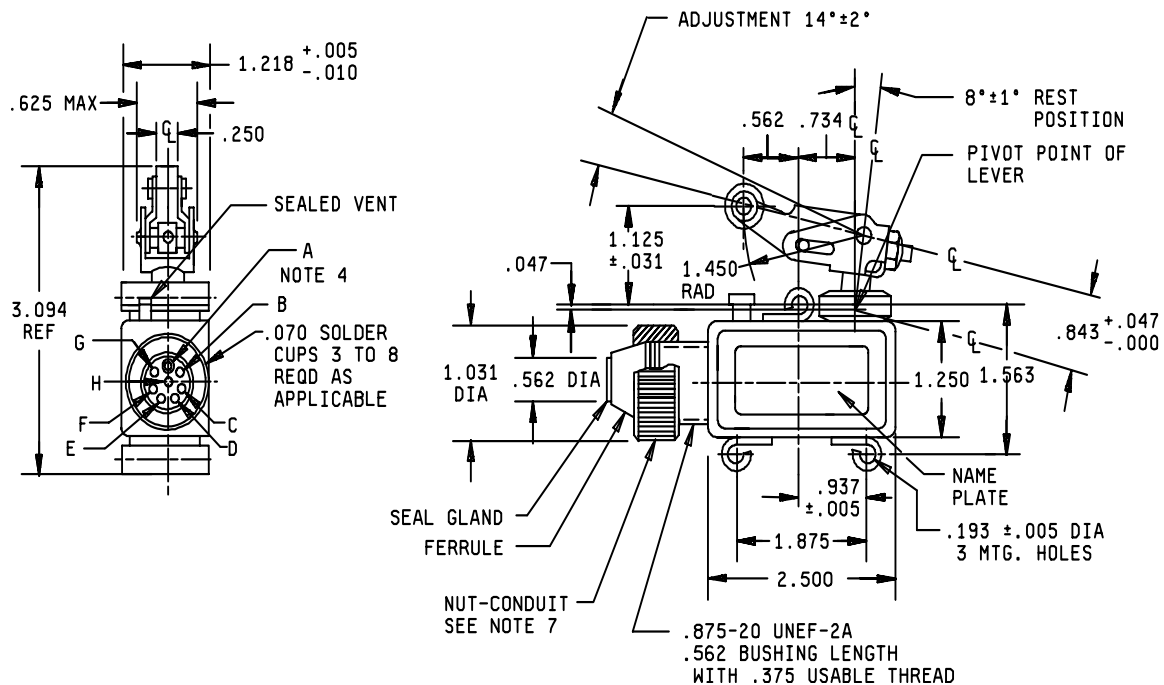
MIL-S-8805/51C
31 October 2001

SUPERSEDING
MIL-S-8805/51B
16 June 1993

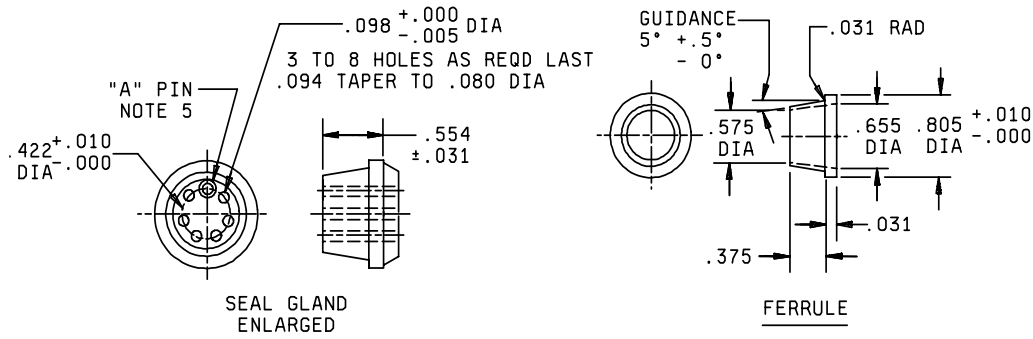
SWITCHES, SENSITIVE, ROLLER-LEVER, WATERTIGHT

INACTIVE FOR NEW DESIGN AFTER 10 FEBRUARY 1971

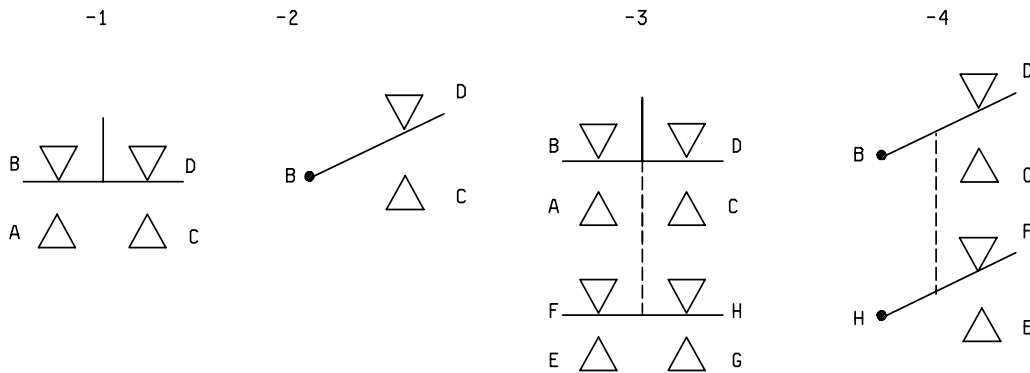
The requirements for acquiring the product described herein shall consist of this specification and MIL-PRF-8805.

FIGURE 1. Dimensions and configuration.

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CONTACT ARRANGEMENT:



| Inches | mm | Inches | mm | Inches | mm | Inches | mm |
|--------|------|--------|-------|--------|-------|--------|-------|
| .005 | 0.13 | .193 | 4.90 | .655 | 16.64 | 1.218 | 30.94 |
| .010 | 0.25 | .250 | 6.35 | .734 | 18.64 | 1.250 | 31.75 |
| .015 | 0.38 | .375 | 9.53 | .805 | 20.45 | 1.450 | 36.83 |
| .031 | 0.79 | .422 | 10.72 | .843 | 21.41 | 1.563 | 39.70 |
| .047 | 1.19 | .554 | 14.07 | .875 | 22.23 | 1.875 | 47.63 |
| .080 | 2.03 | .562 | 14.27 | .937 | 23.80 | 2.500 | 63.50 |
| .094 | 2.39 | .575 | 14.61 | 1.031 | 26.19 | 3.094 | 78.59 |
| .098 | 2.49 | .625 | 15.88 | 1.125 | 28.58 | | |

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerance is $\pm .015$ (0.38 mm), except $\pm .005$ (.127 mm) for ferrule and seal gland.
4. The "A" pin shall be permanently indicated with a circle.
5. One hole on small end of gland shall be permanently marked with a circle, to be mounted on "A" pin.
6. The circuit and the terminal arrangement shall be marked on the switch case.
7. The dimensions of the electrical conduit coupling nut shall be in accordance with AN3054-8 or equivalent. Alternative base metals and protective finishes, as approved by the qualifying activity, may be used.

FIGURE 1. Dimensions and configuration - Continued.

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REQUIREMENTS:

Dimensions and configuration: See figure 1.

Enclosure design: 3 (watertight).

Temperature characteristic: 2 (-65° to +125°C).

Shock type: 50 g's, sawtooth, in accordance with method 213, test condition G, MIL-STD-202.

Sinusoidal vibration grade: 1 (10 to 500 Hz).

Material:

Ferrule: Deep drawn steel gauge number 22 (.031 inch), plated to resist corrosion.

Seal gland: Silicone rubber or equivalent.

Weight: 8.25 ounce maximum.

Operating characteristics:

Actuating force: 4.0 +2, -0 pounds.

Pretravel: .100 ±.031 inch.

Overtravel: .281 inch minimum.

Movement differential: .062 +.025, -.000 inch.

Full overtravel force: 11 ±3 pounds.

Coincidence of operating and releasing points: In switches having more than one moving contact, the moving contacts shall open and close together within .010 inch of actuator travel as measured at the roller axis.

Contact resistance: Not applicable.

Mechanical endurance: 200,000 cycles.

Electrical endurance: 100,000 cycles.

Electrical ratings: See table I.

TABLE I. Electrical ratings.

| Load | Sea level | |
|-----------|-----------|------------------|
| | 28 V dc | 115 V ac, 400 Hz |
| | amperes | amperes |
| Resistive | 15 | 10 |
| Inductive | 10 | 10 |
| Lamp | 5 | 6 |

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Qualification:

Group submission: See table II.

Conformance:

Group B inspection: Not applicable.

Part or Identifying Number (PIN): See table III.

TABLE II. Qualification inspection - group submission.

| Examination or test | Basic switch | Other switch samples | Extent of approval |
|---|--------------|--|--------------------|
| Qualification inspection table of MIL-PRF-8805, groups I, II, III, V, VI, VII, and VIII | MS25314-3 | MS25314-1, -2, and -4: Two sample units each, visual and mechanical examination | ALL |

TABLE III. Part or Identifying Number (PIN).

| PIN | Contact arrangement |
|-----------|---------------------|
| MS25314-1 | 2 circuit |
| MS25314-2 | SPDT |
| MS25314-3 | 4 circuit |
| MS25314-4 | DPDT |

Custodians:

Army - CR

Navy - EC

Air Force - 11

DLA - CC

Preparing activity:

DLA - CC

(Project 5930-1126-14)

Review activities:

Army - AR, GL, MI

Navy - AS, MC, OS, SH

Air Force - 19, 99